

MOSQUITO BITE PREVENTION

Protect yourself and your family from mosquito bites.



Use insect repellent.

Use an Environmental Protection Agency (EPA)-registered insect repellent with one of the following active ingredients. When used as directed, EPA-registered insect repellents are proven safe and effective, even for pregnant and breastfeeding women.

Active ingredient Higher percentages of active ingredient provide longer protection	Some brand name examples *
DEET	Off!, Cutter, Sawyer, Ultrathon
Picaridin, also known as KBR 3023, Icaridin, and Bayreprel	Cutter Advanced, Skin So Soft Bug Guard Plus, Autan
Oil of lemon eucalyptus (OLE) or para-menthane-diol (PMD)	Repel
IR3535	Skin So Soft Bug Guard Plus Expedition, SkinSmart

* Insect repellent brand names are provided for your information only. The Department of Public Health & Social Services does not endorse any brand name products.

Use insect repellent. (continued)

- Always follow the product label instructions.
- Reapply insect repellent every few hours, depending on which product and strength you choose.
- Don't spray repellent on skin under clothing.
- If you are using sunscreen, apply sunscreen first and insect repellent second.



If you have a baby or child.

- Always follow product label instructions when applying insect repellent to children.
- Do not use insect repellent on babies younger than 2 months of age.
- Dress your child in clothing that covers arms and legs.
- Cover crib, stroller, and baby carrier with mosquito netting.
- Do not apply insect repellent onto a child's hands, eyes, mouth, and cut or irritated skin. Adults, spray insect repellent onto your hands and then apply to a child's face.
- Do not use products containing oil lemon eucalyptus (OLE) or para-menthane-diol (PMD) on children under 3 years of age.



Treat clothing and gear.

- Treat items such as boots, pants, socks, and tents with permethrin or purchase permethrin-treated clothing and gear.
- Permethrin-treated clothing will protect you after multiple washings. See product information to find out how long the protection will last.
- If treating items yourself, follow the product instructions.
- Do not use permethrin products directly on skin.



Mosquito-proof your home.

- Use screens on windows and doors. Repair holes in screens to keep mosquitoes outside.
- Use air conditioning when available.
- Keep mosquitoes from laying eggs in and near standing water.
- Once a week, empty and scrub, turn over, cover, or throw out items that hold water, such as tires, buckets, planters, toys, pools, birdbaths, flowerpots, or trash containers. Check inside and outside of your home.



DEPARTMENT OF PUBLIC HEALTH & SOCIAL SERVICES

DIVISION OF ENVIRONMENTAL HEALTH

MOSQUITO SURVEILLANCE AND CONTROL PROGRAM





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DID YOU KNOW ?


Not all mosquitoes are the same. Different mosquitoes spread different viruses and bite at different times of the day.


Type of Mosquito	Virus Spread	Biting Habits
 <i>Aedes aegypti</i> , <i>Aedes albopictus</i>	Chikungunya, Dengue, Zika	Primarily daytime, but can also bite at night
 <i>Culex</i> species	West Nile Japanese B Encephalitis	Evening to morning


Many mosquito problems in your neighborhood are likely to come from water-filled containers that you can help to eliminate. All mosquitoes require water in which to breed. Be sure to drain any standing water around your house.


Female *Aedes* mosquitoes lay several hundred eggs on the walls of water-filled containers. Eggs stick to containers like glue and remain attached until they are scrubbed off. When water covers the eggs, they hatch and become adults in about a week.


TRIVIA

 Only female mosquitoes bite. Both male and female feed mainly on fruit and plant nectar, but females also need the protein in blood to help develop eggs. Once she's had her fill of blood, she'll rest for a couple of days before laying her eggs.

 A mosquito can drink up to three times its weight in blood. Don't worry, though, it would take about 1.2 million bites to drain all the blood from your body.

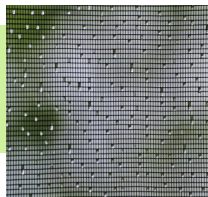
 Mosquitoes can smell human breath. The receptors on their antennae detect carbon dioxide that is released when we exhale.

 Mosquitoes are considered the deadliest animal in the world. The *Anopheles* mosquito is particularly dangerous as it transmits malaria, which kills more than 627,000 people every year, primarily in Africa. Alexander the Great is believed to have died of malaria in 323 B.C.

 Mosquitoes do not transmit HIV, the virus that causes AIDS because it does not replicate in mosquitoes and is actually digested in their stomachs.

MOSQUITO SOURCE REDUCTION

INSIDE YOUR HOME



SCREENS

- Install screens on windows and doors in your home (20x20 or 20x30 mesh is recommended).
- Screens are a great way to keep mosquitoes out.
- Repair holes in screens.



PLUMBING

- Fix leaky faucets and control valves in toilet.
- If vacating your home or going on vacation, cover the toilet bowl.



STANDING WATER

- Clean and empty pet dishes and bowls regularly.
- Change water in flowerpots and vases at least every other day.
- Scrub the inside of vases and containers to remove mosquito eggs.
- Discard unwanted cups and bottles.

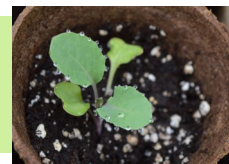
Sources: The American Mosquito Control Association; U.S. Centers for Disease Control and Prevention; U.S. Department of Agriculture; and entomology and agriculture departments at the University of California – Davis, Colorado State University, Rutgers University, University of Nebraska, and the University of Florida.

OUTSIDE YOUR HOME



TIRES

- Tires can breed thousands of mosquitoes.
- Dispose or recycle old tires at a proper facility.
- Prevent water from collecting by drilling several large holes all around so water can flow out.
- Protect them from rain by using a cover.



YARD & GARDEN

- Fill tree holes with sand or cement and cut tall grass.
- Make sure potted plants are free from standing water.
- Flowers that collect water, such as bromeliads, should be drained.
- Gardening tools such as rain barrels, buckets, and wheelbarrows must be kept in a dry place, covered, or turned over when not in use.
- The water in decorative garden furniture, such as bird baths, should be changed at least once a week. Ornamental water gardens should be aerated or have fish living in them to eat mosquito eggs and larvae.
- Empty tarps and wood piles that have been collecting water.
- Cover or drain plastic wading pools when not in use. Clean and chlorinate swimming pools often.
- Fill in low areas of your property to eliminate standing water.



TRASH & OTHERS

- Keep trash and other containers closed at all times.
- Cover, screen, or remove water from trash containers, tin drums, and barrels.
- Dispose all cans, bottles, and containers in a trash bag.
- Clear roof gutters and down spouts of debris. Repair defective drainage systems if you notice stagnant water in the gutter.
- Keep septic tanks sealed and repair cracks or gaps.